

JUSTIFICATION FOR SOLE SOURCE ACQUISITION
4200400162

NASA, John F. Kennedy Space Center (KSC), will negotiate with JAVAD for the purchase of TRIUMPH-VS and associated antenna. [REDACTED]

NASA has a requirement to analyze the quality of the Global Navigation Satellite System (GNSS, commonly called GPS) frequency bands for interference. GPS receivers are used at KSC for critical operations such as timing, surveys, and tracking of vehicles. If these GPS receivers were degraded due to outside interference it would affect certain operations at KSC. The JAVAD Triumph-VS will identify any interference within the GPS frequency bands.

TRIUMPH-VS scans the GNSS bands and shows the shape and frequencies of the interferences, but it also quantifies the magnitude of the interferences in two distinct and complementary ways: a) by analyzing the analog signal and determining the "Interference Magnitude", and b) by analyzing the S/N (Signal-to-Noise ratio) of all satellites' signals after they are digitized and processed (after code and carrier correlations) and determining the "Satellites S/N loss" due to interferences.

"Interference Magnitude" is determined by analyzing the amount of gain that we can apply to the GNSS signal before digitizing it. The more interference there is, the less we can amplify the signal to avoid saturation. We can determine the "Interference Magnitude" by comparing the actual amplification magnitude with our nominal amplification magnitude (when no interference exists).

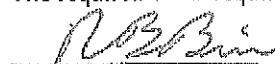
The biggest advantage of the Triumph-VS is that the model quoted has the GNSS Spectrum Analyzer outputted as Raw Data.


Pursuant to FAR 13.106-1(b) and 13.106-3(b)(3)(i), the acquisition of the referenced requirements are only know from one source. Competition is impractical for the following reasons: JAVAD Triumph-VS is the only know GNSS receiver that will report interference in the frequency bands.

Market research was performed by NE-E9 during the month of June 2011 and it was found that there are no other known vendors that sell this type of product. JAVAD is the only source able to provide the required software maintenance.

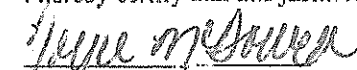
Based upon the above, I hereby determine that the circumstances of the contract action deem only one source reasonably available for this acquisition. I certify that the supporting data presented in this justification are accurate and complete.

The requirement is required to be synopsisized in NAIS/EPS.


Richard Birr
Technical Representative


Date 9/6/2011

I hereby certify that this justification is accurate and complete to the best of my knowledge and belief.


Joyce McDowell
Contracting Officer


Date 9/6/2011